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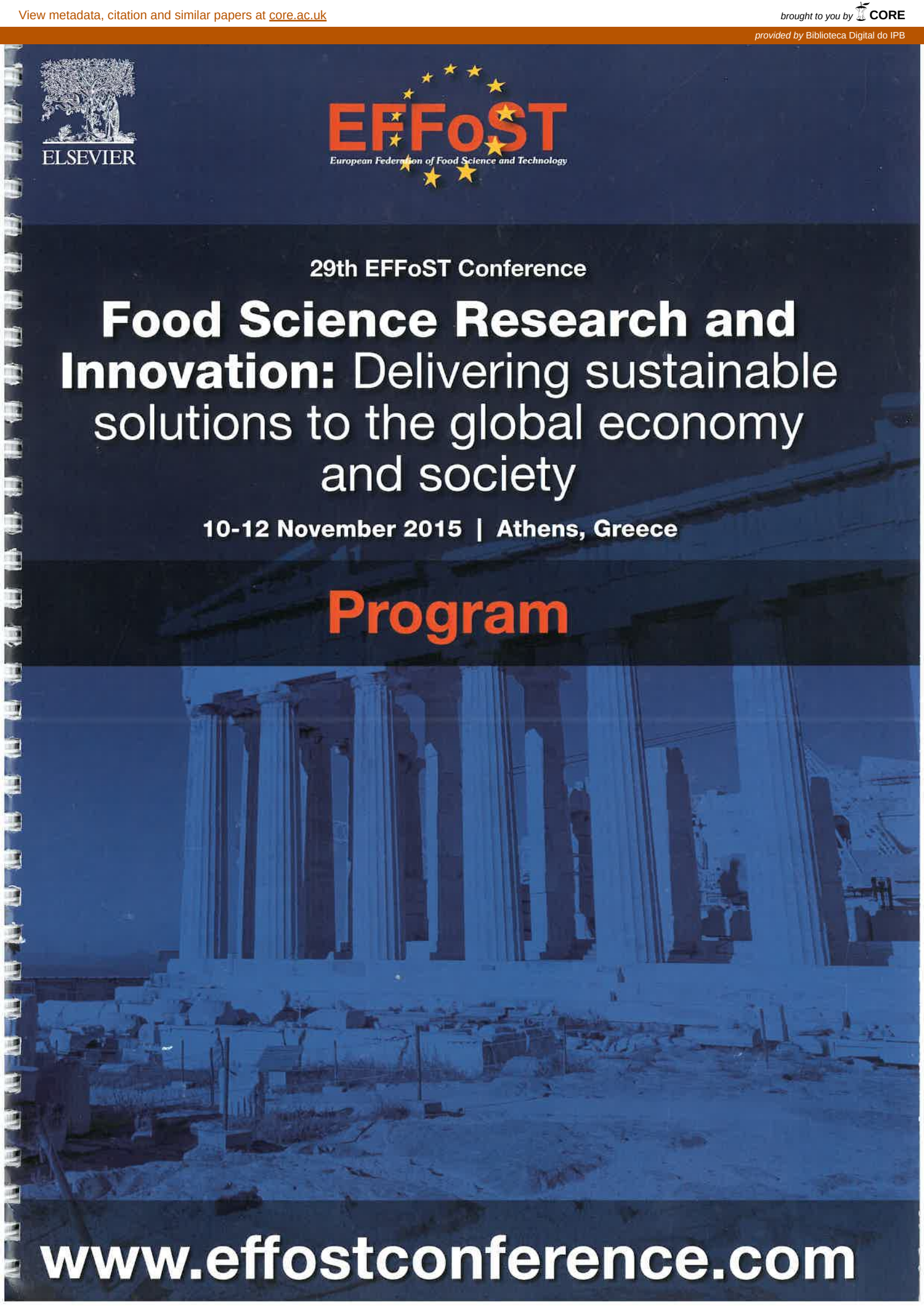

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Title:

Physic-chemical characterization of a traditional Portuguese bread (*Pão Transmontano*) towards its future certification – Preliminary results

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Abstract: (Your abstract must use **Normal style** and must fit in this box. Your abstract should be no longer than 300 words. The box will 'expand' over 2 pages as you add text/diagrams into it.)

In Trás-os-Montes region, Northeast of Portugal, it is tradition to produce a kind of bread, called *pão transmontano*. In the present work breads from two bakeries located in Bragança city were physically and chemically characterized in order to collect data for *pão transmontano* future certification. Results regarding dimensions, colour, water activity, pH, moisture, ash, salt, fat, protein and total dietary fibre contents are presented, being both breads compared with the "common" wheat bread. The mean composition of this bread is described on the Food Composition Table that is a national reference paper for the composition of food products.

One of the breads presented a total weight of 987.6 g, diameter of 23.0 cm and height of 8.5 cm; water activity of 0.975±0.012; salt content 0.32±0.04% (d.w. – dry weight); moisture content of 31.18±4.15% (f.w. – fresh weight); ash content 1.19±0.03% (d.w.); pH value 6.36±0.02; fat content 0.95±0.22% (d.w.); total dietary fibre content of 4.11±0.50% (d.w.), and total protein content of 7.18±0.08% (d.w.). The other bread presented a total weight of 1123.8 g, diameter of 24.0 cm and height of 10.0 cm; water activity of 0.965±0.005; salt content 0.79±0.04%; moisture content of 35.09±1.12% (f.w.); ash content 1.73%±0.01%; pH value 6.28±0.02; fat content 1.50±0.26%; total dietary fibre content of 6.03±0.51%, and total protein content of 7.98±0.16%, suggesting some differences between the two breads. Moreover, these traditional breads showed lower fat and protein contents than the "common" wheat bread. In terms of colour coordinates for crust and crumbs, both breads presented similar values in relation to *L**, *a**, *b**, chroma or saturation (*C**) and hue angle (*h**), indicating that the major differences are found in their nutritional composition instead format and colour. These preliminary data are an important step for the characterization of this type of bread in order to proceed for its certification process.

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